A FAMILY OF GENERALIZED GAMMA CONVOLUTED VARIABLES

B. Roynette  
P. Vallois  
M. Yor

Abstract: a family of generalized gamma convoluted (abbreviated as GGC) variables. In the second part, we use this description to prove that several r.v.’s, related to the length of excursions away from 0 for a recurrent linear diffusion on $\mathbb{R}_+$, are GGC. Finally, in the third part, we apply our results to the case of Bessel processes with dimension $d = 2(1 - \alpha)$, where $0 < d < 2$ or $0 < \alpha < 1$.

2000 AMS Mathematics Subject Classification: 60J25, 60G51, 60E07, 60E05.
Keywords and phrases: GGC variables, lengths of excursions, Bessel processes.